UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,567	08/31/2001	Ryusuke Kawate	213026US2	7591

22850 7590 06/28/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
PHAN, HANH	
ART UNIT	PAPER NUMBER
2638	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/942,567	KAWATE ET AL.	
	Examiner	Art Unit	
	Hanh Phan	2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 12-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 12-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 12/30/2004.

2. The indicated allowability of claims 12-14 is withdrawn in view of the newly discovered reference(s) to Kumozaki et al (US Patent No. 5,539,564) and Touma et al (US Patent No. 6,288,809). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 and 12-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Kumozaki et al (US Patent No. 5,539,564).

Regarding claims 1 and 15, referring to Figures 4 and 6, Kumozaki discloses an optical distribution network system comprising:

an optical line termination (i.e., central office equipment 101, Fig. 4);

a plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) connected to the optical line termination (i.e., central office equipment 101, Fig. 4)

through a working optical network (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and a standby optical network (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4);

at least one of the plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) comprises means (i.e., SEL 350 and SEL 450, Fig. 4) for selecting one of downstream messages copied by the optical line termination (i.e., central office equipment 101, Fig. 4) and received via the working optical network (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and the standby optical network (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4), based on selection signals including in passive optical network section trace messages for respective optical network units (col. 12, lines 62-67 and col. 13, lines 1-36).

Regarding claims 2 and 16, Kumozaki further teaches the optical line termination (i.e., central office equipment 101, Fig. 4) comprises means (SEL 150, Fig. 4) for selecting one of upstream messages copied by at least one of the plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) and received via the working optical network and the standby optical network.

Regarding claims 3, 17 and 18, Kumozaki further teaches the means for selecting one of upstream message comprises a gate (i.e., switch 140, Figs. 1-3 and 15) configured to block one of the upstream messages.

Regarding claim 12, referring to Figures 1-4, 6, 8, 9 and 15, Kumozaki discloses an optical distribution network system comprising:

an optical line termination (i.e., central office equipment 101, Fig. 4);

a plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) connected to the optical line termination (i.e., central office equipment 101, Fig. 4) through at least of a first optical network (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and a second optical network (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4);

monitoring means (i.e., control section 170, Fig. 15) for detecting a system switching request from the plurality of optical network units, the monitoring means disposed in the optical line termination (col. 20, lines 1-67 and col. 21, lines 1-60);

control means (i.e., control section 170, Fig. 15) for controlling system switching between a working side and a standby side of the plurality of optical network units, the control means disposed in the optical line termination;

wherein the optical line termination (i.e., central office equipment 101, Fig. 4) comprises output selecting means (i.e., SEL 150, Fig. 4) for outputting one of upstream messages that are copied via the working side and the standby side by at least one of the plurality of optical network units;

wherein at least one of the plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) comprises output selecting means (i.e., SEL 350 and SEL 450, Fig. 4) for outputting one of downstream messages that are copied via the working side (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and the standby side (i.e., optical transceiver 120, 1TH path, and

optical splitter 230, fibers 221 and 222, Fig. 4) by the optical line termination (see col. 12, lines 62-67 and col. 13, lines 1-36); and

wherein at least one of the plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) comprises a gate (i.e., switches 331, 335 in Figs. 8 and 9) configured to prevent one of the messages to be copied from being copied by suppressing it .

Regarding claim 13, referring to Figures 1-4, 6, 8, 9 and 15, Kumozaki discloses an optical distribution network system comprising:

an optical line termination (i.e., central office equipment 101, Fig. 4);

a plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) connected to the optical line termination (i.e., central office equipment 101, Fig. 4) through at least of a first optical network (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and a second optical network (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4);

monitoring means (i.e., control section 170, Fig. 15) for detecting a system switching request from the plurality of optical network units, the monitoring means disposed in the optical line termination (col. 20, lines 1-67 and col. 21, lines 1-60);

control means (i.e., control section 170, Fig. 15) for controlling system switching between a working side and a standby side of the plurality of optical network units, the control means disposed in the optical line termination;

wherein the optical line termination (i.e., central office equipment 101, Fig. 4) comprises output selecting means (i.e., SEL 150, Fig. 4) for outputting one of upstream

messages that are copied via the working side and the standby side by at least one of the plurality of optical network units;

wherein at least one of the plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) comprises output selecting means (i.e., SEL 350 and SEL 450, Fig. 4) for outputting one of downstream messages that are copied via the working side (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and the standby side (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4) by the optical line termination (see col. 12, lines 62-67 and col. 13, lines 1-36); and

wherein the optical line termination (102, Fig. 15) comprises a gate (i.e., switches 130, 140, Fig. 15) configured to prevent one of the messages to be copied from being copied by suppressing it.

Regarding claim 14, referring to Figures 1-4, 6, 8, 9 and 15, Kumozaki discloses an optical distribution network system comprising:

an optical line termination (i.e., central office equipment 101, Fig. 4);

a plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) connected to the optical line termination (i.e., central office equipment 101, Fig. 4) through at least of a first optical network (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and a second optical network (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4);

monitoring means (i.e., control section 170, Fig. 15) for detecting a system switching request from the plurality of optical network units, the monitoring means disposed in the optical line termination (col. 20, lines 1-67 and col. 21, lines 1-60);

control means (i.e., control section 170, Fig. 15) for controlling system switching between a working side and a standby side of the plurality of optical network units, the control means disposed in the optical line termination;

wherein the optical line termination (i.e., central office equipment 101, Fig. 4) comprises output selecting means (i.e., SEL 150, Fig. 4) for outputting one of upstream messages that are copied via the working side and the standby side by at least one of the plurality of optical network units;

wherein at least one of the plurality of optical network units (i.e., subscriber's equipment 301 and 401, Fig. 4) comprises output selecting means (i.e., SEL 350 and SEL 450, Fig. 4) for outputting one of downstream messages that are copied via the working side (i.e., optical transceiver 110, 0TH path, and optical splitter 210, fibers 201 and 202, Fig. 4) and the standby side (i.e., optical transceiver 120, 1TH path, and optical splitter 230, fibers 221 and 222, Fig. 4) by the optical line termination (see col. 12, lines 62-67 and col. 13, lines 1-36); and

wherein the control means (i.e., CONT 170, 370, 470, Fig. 15) configured to prevent the message of the selected side from being output until a predetermined time has elapsed after the system switching (col. 17, lines 15-61, col. 20, lines 1-67 and col. 21, lines 1-60).

5. Claims 1-3 and 12-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Touma et al (US Patent No. 6,288,809).

Regarding claims 1 and 15, referring to Figure 1, Touma discloses an optical distribution network system comprising:

an optical line termination (i.e., optical service unit OSU, Fig. 1);

a plurality of optical network units (i.e., optical network units ONUs, Fig. 1) connected to the optical line termination (i.e., optical service unit OSU, Fig. 1) through a working optical network and a standby optical network (col. 4, lines 60-67 and col. 5, lines 1-45);

at least one of the plurality of optical network units (i.e., optical network units ONU, Fig. 1) comprises means (i.e., system changer 26, Fig. 1) for selecting one of downstream messages copied by the optical line termination (i.e., optical service unit OSU, Fig. 1) and received via the working optical network and the standby optical network, based on selection signals including in passive optical network section trace messages for respective optical network units (col. 6, lines 9-19).

Regarding claims 2 and 16, Touma further teaches the optical line termination (i.e., optical service unit OSU, Fig. 1) comprises means (i.e., system changer 1, Fig. 1) for selecting one of upstream messages copied by at least one of the plurality of optical network units (i.e., optical network unit ONU, Fig. 1) and received via the working optical network and the standby optical network (col. 6, lines 20-60).

Regarding claims 3, 17 and 18, Touma further teaches the means for selecting one of upstream message comprises a gate configured to block one of the upstream messages (col. 5, lines 21-28 and col. 6, lines 35-60).

Regarding claim 12, referring to Figure 1, Touma discloses an optical distribution network system comprising:

an optical line termination (i.e., optical service unit OSU, Fig. 1);

a plurality of optical network units (i.e., optical network unit ONUs, Fig. 1) connected to the optical line termination through at least of a first optical network and a second optical network (col. 4, lines 60-67 and col. 5, lines 1-45);

monitoring means (i.e., controller 7, Fig. 1) for detecting a system switching request from the plurality of optical network units, the monitoring means (controller 7, Fig. 1) disposed in the optical line termination (col. 5, lines 21-27);

control means (i.e., controller 7, interface portion 8, station monitoring unit 9, Fig. 1) for controlling system switching between a working side and a standby side of the plurality of optical network units, the control means disposed in the optical line termination (col. 6, lines 20-60);

wherein the optical line termination (i.e., optical service unit OSU, Fig. 1) comprises output selecting means (i.e., system changer 1, Fig. 1) for outputting one of upstream messages that are copied via the working side and the standby side by at least one of the plurality of optical network units (col. 6, lines 35-60);

wherein at least one of the plurality of optical network units (i.e., optical network units ONUs, Fig. 1) comprises output selecting means (i.e., system changer 26, Fig. 1)

for outputting one of downstream messages that are copied via the working side and the standby side by the optical line termination (col. 6, lines 9-19); and

wherein at least one of the plurality of optical network units (i.e., optical network unit ONU, Fig. 1) comprises a gate configured to prevent one of the messages to be copied from being copied by suppressing it (col. 6, lines 9-19).

Regarding claim 13, referring to Figure 1, Touma discloses an optical distribution network system comprising:

an optical line termination (i.e., optical service unit OSU, Fig. 1);

a plurality of optical network units (i.e., optical network unit ONUs, Fig. 1) connected to the optical line termination through at least of a first optical network and a second optical network (col. 4, lines 60-67 and col. 5, lines 1-45);

monitoring means (i.e., controller 7, Fig. 1) for detecting a system switching request from the plurality of optical network units, the monitoring means (controller 7, Fig. 1) disposed in the optical line termination (col. 5, lines 21-27);

control means (i.e., controller 7, interface portion 8, station monitoring unit 9, Fig. 1) for controlling system switching between a working side and a standby side of the plurality of optical network units, the control means disposed in the optical line termination (col. 6, lines 20-60);

wherein the optical line termination (i.e., optical service unit OSU, Fig. 1) comprises output selecting means (i.e., system changer 1, Fig. 1) for outputting one of upstream messages that are copied via the working side and the standby side by at least one of the plurality of optical network units (col. 6, lines 35-60);

wherein at least one of the plurality of optical network units (i.e., optical network units ONUs, Fig. 1) comprises output selecting means (i.e., system changer 26, Fig. 1) for outputting one of downstream messages that are copied via the working side and the standby side by the optical line termination (col. 6, lines 9-19); and

wherein the optical line termination (i.e., optical service unit OSU, Fig. 1) comprises a gate configured to prevent one of the messages to be copied from being copied by suppressing it (col. 5, lines 21-27 and col. 6, lines 35-60).

Regarding claim 13, referring to Figure 1, Touma discloses an optical distribution network system comprising:

an optical line termination (i.e., optical service unit OSU, Fig. 1);

a plurality of optical network units (i.e., optical network unit ONUs, Fig. 1) connected to the optical line termination through at least of a first optical network and a second optical network (col. 4, lines 60-67 and col. 5, lines 1-45);

monitoring means (i.e., controller 7, Fig. 1) for detecting a system switching request from the plurality of optical network units, the monitoring means (controller 7, Fig. 1) disposed in the optical line termination (col. 5, lines 21-27);

control means (i.e., controller 7, interface portion 8, station monitoring unit 9, Fig. 1) for controlling system switching between a working side and a standby side of the plurality of optical network units, the control means disposed in the optical line termination (col. 6, lines 20-60);

wherein the optical line termination (i.e., optical service unit OSU, Fig. 1) comprises output selecting means (i.e., system changer 1, Fig. 1) for outputting one of

upstream messages that are copied via the working side and the standby side by at least one of the plurality of optical network units (col. 6, lines 35-60);

wherein at least one of the plurality of optical network units (i.e., optical network units ONUs, Fig. 1) comprises output selecting means (i.e., system changer 26, Fig. 1) for outputting one of downstream messages that are copied via the working side and the standby side by the optical line termination (col. 6, lines 9-19); and

wherein the control means (i.e., controller 7, interface portion 8, station monitoring unit 9, Fig. 1) configured to prevent the message of the selected side from being output until a predetermined time has elapsed after the system switching (col. 5, lines 21-27 and col. 6, lines 35-60).

Response to Arguments

6. Applicant's arguments filed 12/30/2004 have been fully considered but they are not persuasive.

The applicant's arguments to claim 1-3 and 12-14 are not persuasive. The independent claim 1 is now amended to include the limitation of " **an optical line termination; a plurality of optical network units connected to the optical line termination through a working optical network and a standby optical network at least one of the plurality of optical network units comprises means for selecting one of downstream messages copied by the optical line termination and received via the working optical network and the standby optical network, based on selection signals including in passive optical network section trace messages for**

respective optical network units " and the applicant argues that the cited reference (Touma et al) fails to teach such the limitation. The examiner respectfully disagrees. As indicated in Figure 1, Touma et al teaches an optical distribution network system comprising: an optical line termination (i.e., optical service unit OSU, Fig. 1), a plurality of optical network units (i.e., optical network units ONUs, Fig. 1) connected to the optical line termination (i.e., optical service unit OSU, Fig. 1) through a working optical network and a standby optical network (col. 4, lines 60-67 and col. 5, lines 1-45), at least one of the plurality of optical network units (i.e., optical network units ONU, Fig. 1) comprises means (i.e., system changer 26, Fig. 1) for selecting one of downstream messages copied by the optical line termination (i.e., optical service unit OSU, Fig. 1) and received via the working optical network and the standby optical network, based on selection signals including in passive optical network section trace messages for respective optical network units (col. 6, lines 9-19).

Therefore, it is believed that the limitations of claims 1-3 and 12-14 are still met the Touma et al and the rejection is still maintained.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone

number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

HANH PHAN
PRIMARY EXAMINER